REMARKS

In view of the above amendments and the following remarks, reconsideration and further examination are requested.

Attached hereto is a marked-up version of the changes made to the application by the current amendment. The attachment is captioned "**Version with Markings to Show Changes Made.**"

In item 1 on page 2 of the Office Action, the Examiner objected to the Information Disclosure Statement filed November 9, 1999 under 37 CFR §1.98(a)(2)(iii), which currently requires a legible copy of each cited pending U.S. patent application. The Examiner indicated that the Information Disclosure Statement has been placed in the application file but that the pending applications referred to therein have not been considered. The non-consideration of the Information Disclosure Statement filed November 9, 1999 is traversed for the following reasons.

The requirement to submit a copy of copending applications cited in information disclosure statements was added to 37 CFR §1.98 by an amendment with an effective date of November 7, 2000. For the Examiner's convenience, photocopies of the Federal Register, Vol. 65, No. 175, Friday, September 8, 2000, pages 54604, 54631, and 54632 are enclosed herewith. As stated on page 54604, the effective date for the amendment to 37 CFR §1.98 is November 7, 2000. As can be seen from column 2 on page 54631, the requirement that an information disclosure statement include a legible copy of each cited pending U.S. application is added by the amendment. Further, as stated in column 1 on page 54632, in an information disclosure statement filed **on or after the effective date of this rule**, which cites a pending U.S. application, a copy of that pending application must be submitted. Thus, since the information disclosure statement at issue here was filed November 9, 1999, which is not on or after the effective date of November 7, 2000 of the amended Rule 98(a)(2), it is submitted that the information disclosure statement is acceptable and the copending applications cited therein should be considered by the Examiner. Accordingly, it is requested that the Examiner consider the copending applications cited in the Information Disclosure Statement of November 9, 1999, and that the Examiner return an initialed copy of the Form PTO 1449 of the Information Disclosure Statement with the next office action.

In item 2, the Examiner objected to the Declaration for not adequately identifying the application. Accordingly, a new Declaration is filed concurrently herewith.

In item 3, the Examiner requested Applicants cooperation in correcting any errors in the specification. Accordingly, various editorial amendments have been to the specification and abstract. No new matter has been added.

In item 5, claims 1-21 were rejected under 35 USC § 112, second paragraph, as being indefinite. Accordingly, claims 1-21 have been canceled in favor of new claims 22-42. Claims 22-42 are in compliance with 35 USC § 112, second paragraph.

The Examiner asserted that the term "super" renders the claims indefinite. This point is traversed because the term "superdistribution" is a term of art and would have been known by a person having ordinary skill in the art at the time the present invention was made. For example, the Examiner's attention is directed to the Yoshida reference, which is applied by the Examiner in the outstanding office action. In column 1, lines 29-35 of Yoshida, the "superdistribution" is discussed. Further, a prior art publication from July 1990, Mori et al., is cited in the Yoshida patent and is titled "Superdistribution: the Concept and Architecture." Moreover, on page 16, beginning at line 8, of the present specification, the term "superdistribution data" is defined to mean distribution data ciphered to an AAC (Advanced Audio Coding) format including attribute information such as at least charged information, which the cipherment thereof is released (i.e., deciphered) by completing the charging process. Further, the present specification includes descriptions of the super distribution data throughout. In addition, new claims 22-42, change the phrase "super distribution" to the word "superdistribution" so as to remove any concern on the part of the Examiner because of the word "super."

In item 9, claims 1-21 were rejected under 35 USC § 102(e) as being clearly anticipated by Imai et al. In item 10, claims 1-21 were rejected under 35 USC § 102(e) as being clearly anticipated by Yoshida et al. These rejections are traversed.

Before addressing the substance of the distinguishing features between the claims of the present application and the cited references, the procedural issue regarding the lack of any explanation as to the pertinence of the cited reference is first addressed. Specifically, 37 CFR § 1.104(c)(2) states

that when a reference is complex or shows or describes inventions other than that claimed by the Applicant, the particular part relied on must be designated as nearly as practicable. This Rule also states that pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified. Further, MPEP § 2131 states that "a claim is anticipated only if each and every element as set forth in the claim is found either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the .... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ 2d 1913, 1920 (Fed. Cir. 1989). Accordingly, at least because of the complexity of the present invention and the cited references, it is submitted that the lack of any explanation on the part of the Examiner regarding the pertinence of the cited references is inappropriate. If the Examiner intends to maintain the rejections based on the prior art references cited in the outstanding Office Action, then it is requested that the Examiner include the requisite explanation of the pertinence of such references.

The rejections are also traversed from a substantive standpoint as follows.

Each of independent claims 22, 29, and 36 includes recitations drawn to a data format judging section which judges whether or not the data to be processed is of a superdistribution format, and in the case where it is judged that the received data to be processed is of the superdistribution format, the received super distribution format data is supplied to an external recording apparatus without subjection of any format conversion, whereas, in the case where it is judged that the received data is not of the superdistribution format, the attribute information corresponding to the audio contents is obtained from the external equipment, and a data format conversion converts the received audio contents in the superdistribution format data with the given attribute information added thereto.

Neither Imai nor Yoshida discloses the above specific feature of the present invention.

In more detail, the Imai reference discloses a data input/output management scheme, where it is judged whether or not the data is protected data which is readable but prohibited from being copied, and then,

1) in the case where it is judged that the data is the protected data, the output destination equipment is checked. As a result of the check, only when the equipment is such as a display device which per se cannot directly read data, a data output is permitted, and

2) in the case where it is judged that the data is not the protected data, the data output is permitted without any restrictions.

In other words, in the Imai reference, it is an essential object to secure a copyright protection of the protected data. As shown in Fig. 2 thereof, it is checked whether or not the ID of the input/output requesting program is recorded in the protected data recording unit in Step S27. When the ID of the input/output program is recorded in the protected data input recording unit, it is judged whether or not this data output request is to be permitted according to a request output target in Step S29. When the requested output target is an output device such as a display device which cannot directly read out the data, the data output request can be judged as permitted in Step S30, whereas otherwise, the requested data output is refused in Step S31. Thus, in the case of the protected data, the data output target is limited.

In contrast, according to the present invention, it is judged whether or not the data is of a superdistribution format, and when the received data is judged to be of non-superdistribution format, the received audio contents data is converted into the superdistribution format data with the given attribute information added thereto. By this arrangement, audio data, which is non-superdistribution formatted data recorded on such as CD medium, is converted into a standardized data format common for the network superdistribution. Thus, the data format can be standardized in the processing to thereby protect a copyright of non-ciphered audio data as well as ciphered data. These specific features and effects are not disclosed or suggested in the Imai reference.

The Yoshida reference discloses a software distribution system in which an encrypted software is distributed and when a user wishes to use the software, a decryption key is issued by paying a software usage charge. In more detail, in the decryption key management scheme for a software distribution system, when a user un-installs previously installed software in order to increase the spare capacity of the hard disc, when the user re-installs the software later, the user can obtain the software distribution without re-payment of the usage charge. For example, as shown in Fig. 1

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thereof a personal computer 11 has a hard disk device 12 which is used as a secondary memory device, and a decryption key memory unit 13 is provided in a memory region of the hard disk device 12. In this management, even in the case where the software is re-installed, since the decryption key stored in the hard disk 12 can be used, it is not necessary for the user to pay the re-usage charge of the software.

In contrast, the present invention has a specific feature of judging whether or not the data is of a superdistribution format, and when the received data is judged to be of non-superdistribution format, the received data is converted into the superdistribution format data with the given attribute information added thereto. By this arrangement, the data format can be standardized in the in the processing to thereby protect a copyright o non-ciphered audio data as well as ciphered data. These specific features and effects are not disclosed in the Yoshida reference.

Accordingly, claims 22-42 are not anticipated by Imai or Yoshida.

In view of the above amendments and remarks, it is submitted that the present application is in condition for allowance. The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues and to expedite allowance of the application.

Respectfully submitted,

Kenji TAGAWA et al.

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July 22, 2002

DEPARTMENT OF COMMERCE

United States Pat nt and Trad mark Offic

37 CFR Parts 1, 3, 5, and 10

[Docket No.: 980826226–0202–03]

RIN 0651–AA98

Changes To Implement the Patent Business Goals

AGENCY: United States Patent and Trademark Office, Commerce.
ACTION: Final rule.

SUMMARY: The United States Patent and Trademark Office (Office) has established business goals for the organizations reporting to the Commissioner for Patents (Patent Business Goals). The focus of the Patent Business Goals is to increase the level of service to the public by raising the efficiency and effectiveness of the Office's business processes. In furtherance of the Patent Business Goals, the Office is changing the rules of practice to eliminate unnecessary formal requirements, streamline the patent application process, and simplify and clarify the provisions of the rules of practice.

DATES: *Effective Dates: This rule is effective November 7, 2000, except that th changes to §§ 1.27, 1.78, 1.115, 1.132, 1.137, 1.152, 1.455, 1.324, 1.366, 1.740 and 1.760, and the removal of § 1.44 are effective September 8, 2000.*

Applicability Dates: Computer program listings in compliance with former § 1.96 will be accepted until March 1, 2001. After that date, computer program listings must comply with revised § 1.96. Amendments in compliance with former § 1.121 will be accepted until March 1, 2001. After that date, amendments must comply with revised § 1.121.

The new two-year limit for requesting refunds under § 1.26 will be applied to any fee paid regardless of when it was paid. For previously paid fees, the two-year time period for requesting a refund will expire on the later of November 7, 2000 or the date that is two years from the date the fee was paid.

FOR FURTHER INFORMATION CONTACT: Hiram H. Bernstein ((703) 305–8713) or Robert W. Bahr ((703) 308–6906), Senior Legal Advisors, or Robert J. Spar, Director ((703) 308–5107), Office of Patent Legal Administration (OPLA), directly by phone, or by facsimile to (703) 305–1013, marked to the attention of Mr. Bernstein, or by mail addressed to: Box Comments—Patents,

Commissioner for Patents, Washington, D.C. 20231.

Additionally, the following members of OPLA may be called directly for the matters indicated:

Robert Bahr ((703) 308–6906): §§ 1.22, 1.25, 1.26, 1.53, 1.55, 1.72, 1.76, 1.78, 1.112, 1.131, 1.132, 1.137, 1.138, 1.193, 1.311 through 1.313, 1.366, Part 5, and Part 10.

Hiram Bernstein ((703) 305–8713): §§ 1.9, 1.22, 1.26 through 1.28, 1.41, 1.48, 1.56, 1.85(c), 1.97, 1.98, 1.105, 1.111, 1.115, 1.133, 1.136, 1.322 through 1.324, and Part 3.

Robert Clarke ((703) 305–9177): Processing and petition fees, and § 1.52(b)(2).

James Engel ((703) 308–5106): §§ 1.152 *et seq.*

Eugenia Jones ((703) 306–5586): §§ 1.9, 1.27, and 1.28.

Jay Lucas ((703) 308–6868) or Anton Fetting ((703) 305–8449): §§ 1.96, and 1.821 *et seq.*

Joe Narcavage ((703) 305–1795): §§ 1.52(b)(6), 1.121, 1.125, and 1.173 *et seq.*

Kenneth Schor ((703) 308–6710): §§ 1.97, 1.98, 1.173 *et seq.*, 1.510 *et seq.*, and Part 3.

Fred Silverberg ((703) 305–8986): § 1.63 (oath or declaration) form.

Karin Tyson ((703) 306–3159): §§ 1.14, 1.33, 1.44, 1.47, 1.51, 1.52 (except (b)(2) and (b)(6)), 1.59, 1.63, 1.64, 1.67, 1.77, 1.84, 1.85 (except (c)), 1.163, and 1.720 *et seq.*

SUPPLEMENTARY INFORMATION: The organizations reporting to the Commissioner for Patents have established five business goals (Patent Business Goals) to meet the Office's Year 2000 commitments. The Patent Business Goals have been adopted as part of the Fiscal Year 1999 Corporate Plan Submission to the President. The five Patent Business Goals are:

Goal 1: Reduce Office processing time (cycle time) to twelve months or less for all inventions.

Goal 2: Establish fully-supported and integrated Industry Sectors.

Goal 3: Receive applications and publish patents electronically.

Goal 4: Exceed our customers' quality expectations, through the competencies and empowerment of our employees.

Goal 5: Align fees commensurate with resource utilization and customer efficiency.

This final rule makes changes to the regulations to support the Patent Business Goals. A properly reengineered or reinvented system eliminates the redundant or unnecessary steps that slow down processing and frustrate customers. In furtherance of the Patent

Business Goals, these changes to the rules of practice take a fresh view of the business end of issuing patents, and continue a process of simplification. Formal requirements of rules that are no longer useful are eliminated. Once the intent of an applicant is understood, the Office will simply go forward with the processing. The essentials are maintained, while formalities are greatly reduced. The object is to focus on the substance of examination and decrease the time that an application for patent is sidelined with unnecessary procedural issues.

In streamlining this process, the Office will be able to issue a patent in a shorter time by eliminating formal requirements that must be performed by the applicant, his or her representatives and the Office itself. Applicants will benefit from a reduced overall cost to them for receiving patent protection and from a faster receipt of their patents.

The Office initially published an advance notice of proposed rulemaking containing twenty-one initiatives. *See Changes to Implement the Patent Business Goals,* Advance Notice of Proposed Rulemaking, 63 FR 53497 (October 5, 1998), 1215 *Off. Gaz. Pat. Office* (October 27, 1998) (Advance Notice). The Office published a notice of proposed rulemaking, proposing a number of changes to the rules of practice to implement the Patent Business Goals that contained about half of the topics set forth in the advance notice plus additional items. *See Changes to Implement the Patent Business Goals,* Notice of Proposed Rulemaking, 64 FR 53771 (October 4, 1999), 1228 *Off. Gaz. Pat. Office* 15 (November 2, 1999). This final rule contains a number of changes to the text of the rules as proposed for comment. The significant changes (as opposed to additional grammatical corrections) are discussed below. Familiarity with the Advance Notice and Notice of Proposed Rulemaking is assumed.

The title "Commissioner of Patents and Trademarks" was changed to "Director of the United States Patent and Trademark Office" by § 4732 of the "American Inventors Protection Act of 1999" (Title IV of the "Intellectual Property and Communications Omnibus Reform Act of 1999") that was incorporated and enacted into law on November 29, 1999, by § 1000(a)(9), Division B, of Public Law 106–113, 113 Stat. 1501 (1999). To avoid inconsistent use of the title "Commissioner" and "Director" in the rules of practice, the Office plans to change the title "Commissioner" wherever it appears in the rules of practice to "Director" in a separate rule change.

Comment 42: One comment opposed the elimination of the three-month window to file an IDS in a CPA under § 1.97(b)(1) and the charging of a fee to obtain the three-month suspension of action under § 1.103. It was suggested that no fee should be charged for the suspension request, or a lower CPA filing fee should offset the suspension fee. It was felt that there is no rational basis to require applicants to pay an additional fee simply to have the CPA obtain the same benefits (*i.e.,* the ability to file an IDS without fee during the first three-month period) as a non-CPA filing, since the full application fee is already required for the CPA filing.

Response: The proposal to amend § 1.103 was not proceeded with in this final rule, but has been included in the final rule to implement request for continued examination practice (the final rule resulting from *Changes to Application Examination and Provisional Application Practice,* Interim Rule, 65 FR 14865 (March 20, 2000), 1233 *Off. Gaz. Pat. Office* 47 (April 11, 2000)). The comment has been treated in that final rule.

Comment 43: Some comments believed that the Office has not justified raising the cost for submission of an IDS under § 1.97(d) and opposed the amendment. The previous higher fee for earlier submission was intended as an inducement to submit the IDS earlier, while the lower fee for later submission existed because an applicant must be able to certify that the art cited in the IDS is being promptly made of record. A request was made for information on the percentage of time prosecution is reopened when art was considered after final determination.

Response: The comment relating to cost justification has been adopted and the cost for submission has been reevaluated. The only factor in determining IDS submission fees is cost to the Office to process the submissions. The Office has accordingly reevaluated the cost for processing both §§ 1.97(c) and (d) fees and has determined that the appropriate cost recovery fee should be the same for both and the fee amount should be $180.

Comment 44: One comment requested clarification of the amendment to § 1.97(e)(1). It was not clear whether the requirement of "first cited" refers to a citation by the foreign patent office that cites the information in an official action, or refers to the citation by any patent office in a counterpart application. For example, if a patent is cited in a German Office action, and it is the first time that the patent is cited in that application, but the same patent was previously cited in a Japanese

counterpart application, could the item of information be cited as the first citation in a communication from the German Patent Office? Unless the German citation could be used as the first citation, the coordination of citations among a plurality of foreign applications would create a very significant administrative burden on applicants and their representatives.

Response: The comment is adopted to the extent that § 1.97(e)(1) has been amended to make clear that the German citation could not be relied upon as the first citation. The term "a" was replaced with the term "any" (as noted in the discussion under § 1.97(e)(1)). The amendment to the rule is a clarification and does not represent a change in practice. The intent of the rule is to encourage IDS disclosures as early in the prosecution as is possible and in particular before payment of the issue fee.

Comment 45: One comment noted that the change discussed in the preamble of the notice of proposed rule changes for § 1.97(i) was not reflected in the rule language portion of the notice. Section 1.97(i) was not presented in the rule language.

Response: The language representing the clarifications discussed but not presented for § 1.97(i) has been placed in the rule language.

Section 1.98: The Office has gone forward, at the present time, with only one aspect of the plan for information disclosure statement (IDS) revision that was set forth in the Advance Notice: the proposal to require that an IDS include a legible copy of each cited pending U.S. application or that portion of the application which caused it to be listed including any claims directed to that portion. The IDS rules are also being revised for consistency and grammar, and to tie up a number of loose ends, as will be discussed below.

Other than the proposed requirement for a copy of each cited U.S. application, the IDS proposals as set forth in Topics 9 and 10 of the Advance Notice were withdrawn in the Notice of Proposed Rulemaking. Accordingly, there is no proposal at this time for a statement of personal review or for a unique description as were called for in the Advance Notice, and the number of citations that may be submitted is not presently limited. The Office issued a notice of hearing and request for public comments to obtain views of the public on issues associated with the identification and consideration of prior art during patentability determinations. *See Notice of Public Hearing and Request for Comments on Issues Related to the Identification of Prior Art During*

the Examination of a Patent Application, Notice of Hearing and Request for Public Comments, 64 FR 28803 (May 27, 1999), 1223 *Off. Gaz. Pat. Office* 91 (June 15, 1999). Pursuant to that notice, the Office held public hearings on June 28, 1999, and July 14, 1999, on the issues. These prior art issues are related to the changes presently being considered by the Office, independent of the instant final rule, to impose requirements/limits on IDS submissions in § 1.98 and in § 1.56. Thus, it would be premature to go forward with a comprehensive new IDS alternative until the results of the hearings and comments submitted in response to the notice have been appropriately evaluated. It is contemplated that any new IDS/§ 1.56 alternatives will be advanced in a future rulemaking.

The specifics of the current revisions to § 1.98 will now be discussed. The discussion will include the changes proposed in the Notice of Proposed Rulemaking, in addition to the application copy requirement that was also present in the Advance Notice of Proposed Rulemaking.

Sections 1.98(a) through (d) are amended for purposes of clarity.

Section 1.98(a)(2)(iii) is amended to be directed solely to a new requirement: For each pending U.S. application citation listed in an IDS, applicant must submit either a copy of the application specification, including the claims, and any drawing of the application, or as a minimum, the portion of the application which caused it to be listed, including any claims directed to the portion which caused it to be listed. The Office noted, in the Advance Notice (and in the Notice of Proposed Rulemaking), its concern that current § 1.98 does not require applicant to supply copies of U.S. application citations. It was pointed out that there is a real burden on the examiner to locate and copy one or more pending applications, thus delaying the examination of the application being examined (in which the U.S. application citation is made). Further, copying a cited pending application has the potential for interfering with the processing and examination of the cited application. This revision would, additionally, be a benefit to the public since the copy of the application would be readily available upon issuance of the application as a patent. Additionally, § 1.98(a)(2)(iv) has been added to contain some material removed by the change to § 1.98(a)(2)(iii). To the extent that the cited pending application represents proprietary information which applicant does not wish to be

publicly available once the patent issues, applicant may submit, prior to issue, a petition that it be expunged pursuant to § 1.59(b).

Sections 1.98(a)(3) and (b) were amended to create subparagraphs.

Section 1.98(b) was further amended to set forth the required identification for listed U.S. applications, to change "shall" to "must," to require in § 1.98(b)(1) identification of the "inventor" rather than of the "patentee" (to conform to the language of § 1.98(b)(2)), and to require in § 1.98(b)(4) identification of the "publisher."

Section 1.98(c) was amended to move the last sentence to § 1.98(a)(3)(ii).

Section 1.98(d) provides that copies of information cited in an IDS are required to be supplied to the Office with the IDS even if such copies had been previously supplied to the Office in an IDS submission in an earlier application, unless excepted under §§ 1.98(d)(1) and (2) relating to a continuing application.

Section 1.98(d)(1) states the requirement that the prior application must be relied on for a benefit claim under 35 U.S.C. 120 and that the earlier application must be properly identified in the IDS.

Section 1.98(d)(2) states that the IDS submitted in the prior application must comply with §§ 1.98(a) through (c) as amended in this notice.

Therefore, in an IDS, filed on or after the effective date of this rule, which cites a pending U.S. application, a copy of that pending application (or the portion of the application which caused it to be listed, including any claims directed to that portion) must be submitted unless:

1. The application for which the IDS was submitted claims benefit to an earlier application under 35 U.S.C. 120 and that earlier application is properly identified in the IDS; and

2. The earlier application cites, and has a copy of, the same pending U.S. application (or the portion of the application which caused it to be listed, including any claims directed to that portion).

Example 1: Application A has an IDS statement which cites pending U.S. application X. This IDS was filed prior to the effective date of the rule change to § 1.98, and applicants did not submit a copy of pending U.S. application X (as they were not required to under former § 1.98(d)). Application B is filed as a continuing application of Application A. In Application B, applicants file an IDS after the effective date of the rule change, in which the IDS lists the same pending U.S. application (*i.e.*, application X) and refers to Application A. Applicants fail to submit a copy of pending U.S. application X with the IDS filed in Application B. The

examiner will not consider pending U.S. application X during the examination of Application B since the IDS does not comply with § 1.98(a)(2)(iii). Applicants must submit a copy of pending U.S. application X in order to ensure that pending U.S. application X is considered by the examiner.

Example 2: Application C cites, and has a copy of, pending U.S. application Y. Application D is filed and claims the benefit of Application C under 35 U.S.C. 120. In Application D, applicants file an IDS, which lists the same pending U.S. application Y and refers to Application C, after the effective date of the rule change. Applicants fail to submit a copy of pending U.S. application Y. The examiner will consider pending U.S. application Y during examination of Application D, since a copy of pending U.S. application Y is not required under § 1.98(d).

This amendment to §§ 1.98(d), (d)(1), and (d)(2) is applicable to all IDS submissions filed on or after the effective date of this rule.

Comment 46: While some comments supported the amendment, others did not. It is argued that submissions of cited applications are relatively rare, and the Office's justification is based on false presumptions that the cited application file is routinely copied or that the examiner must have a copy rather than simply review the (cited) application as is done for references in a subclass. Additional arguments against the amendment are: (a) There is no guarantee that pending cited applications would be expunged from the file in which it is being cited prior to issuance of a patent, (b) it creates a significant burden to applicants and very large paper files in the PTO, (c) most pending applications will soon be available to the examiner in electronic form thus rendering the problem moot, and (d) it violates the confidentiality of 35 U.S.C. 122. It is also argued that as there is no requirement to submit a copy of an application that is cited under Cross Reference to Related Applications, there is no reason to have a different standard where the same application is cited under § 1.98. One suggestion supporting the amendment thought that applicants should be required to submit a copy of the prior art that was submitted in the cited application as well as the copy of the cited application. One comment in support of the amendment noted that the burden on applicants was minor compared to the benefit to examiners during prosecution and to the public after the application issues in obtaining papers and reducing risk of lost and misplaced papers.

Response: The comments opposing the amendment are not adopted. It is the Office's belief that it is faster access to the cited application and faster examination of the application having

the cite, and not the frequency of such application citations, that is determinative. Additionally, supplying a copy of the cited application to the examiner prevents, in most cases, the need to disrupt examination of the cited application. Even where a cited application might not be copied by the examiner, if a copy of the cited application were not supplied, there would still be significant disruption to examination of the cited application, since the examiner would need to obtain the file and usually remove it so that it could be studied in the examiner's office. A cited application is more analogous, not to the totality of references in the search files that an examiner reviews on site, but to the references that the examiner removes from the search file to study further in the examiner's office. An applicant concerned with nondisclosure of the cited application has recourse to § 1.59 expungement provided that the cited application is deemed by the Office to not be material to the examination of the application in which it is cited. On balance, when weighing the burden on applicants to produce a copy versus the Office's need to examine both the application in which another application is cited and the cited application expeditiously, it is believed that the amendment is appropriate. When electronic copies of applications become available to the examiners, the issue will be reconsidered. To the extent that applicants are concerned about supplying a copy of an application cited in an IDS, applicants may refer to the "cited" application in the specification of the "examined" application, rather than by IDS submission and would then not need to supply a copy of the referred to application; however, the Office does not review an application referred to in the specification in the same light as it does a specific IDS citation of the application with a copy supplied. For example, references in the specification may only be for purposes of supplying background information as opposed to utilizing an IDS to comply with a duty of disclosure under § 1.56.

Comment 47: One comment opposed the requirement in § 1.98(b)(2) that each listed U.S. application be identified by the inventor, application number, and filing date, as such information can be easily obtained from PALM. It was suggested that the first named inventor or identification number be used.

Response: The comment is not adopted. The burden to supply the required information is slight, and there is no need to require examiners to look the information up under PALM. Additionally, if only one piece of

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distributed via an internet so that the ciphered data is recorded in the same hard disc of the personal computer. Thereafter, in the subsequent recording process for copying, the recorded audio data is further ciphered to another

5   standardized ciphering system to be secondarily recorded in the hard disc of the personal computer. Thus, the system enables collection of suitable royalties on the copyright for copying such as CD audio data.

Description of the Prior Art

10   In recent years, package medium such as compact disc (referred to as "CD" hereinafter) [forms] has formed the greater part of music data distribution. However, the CD medium hardly copes with pirated edition, namely, illegal copies. Moreover, an equipment, which can easily create CD-R

15   (Compact Disc Recordable) based on the music CD, is on the market, and therefore anybody can make a copy from an original edition, and therefore the copyright protection is insufficient under the present conditions.

In addition, the format of copying contents of CD

20   onto MD (Mini Disc) for listening thereto has been widely spread. At this time, the obtained copy deviates from the scope of personal amusement and the copy is frequently given to others. As a result, there arises a problem that this inflicts a loss on all rights reserved. In order to

25   improve such a situation, Japanese Patent Application Laid-

Open No. 9-34841 (1997) discloses a system which distributes CD storing ciphered software and distributes a deciphering key [via] on-line in response to a request sent by a user while setting charge for the distribution.

5   However, in this conventional system disclosed in Japanese Patent Application Laid-Open No. 9-34841 (1997), it is necessary to inquire to the host computer center about obtaining the deciphering key even within the range of personal amusement and to pay on the charge. Therefore,

10   this possibly inflicts a loss on a user. Moreover, since an equipment under usage by the user can be usually used for only CD recorded with non-ciphered data, the user should additionally purchase a reproducing equipment for ciphered CD data, and this inflicts a great loss on the

15   user.

SUMMARY OF THE INVENTION

       The present invention has been developed to solve such conventional problems, and it is an essential object

20   of the invention to provide a copyright protecting system and method which protects a copyright even when non-super distribution format data such as CD or DVD audio data is distributed by package medium as well as super distribution format data distributed via an online network while setting

25   a suitable charge of a copyright when deviating from the

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range of personal amusement so as to be capable of

protecting all rights reserved. By this arrangement, there

is provided an improved copyright protecting system having

an equipment and software carrier aiming to secure the

5   copyright protection while developing an improvement

copyright protection technology and mechanism making good

use of CD property in common to electronic music

distribution (EMD) via network.

In order to achieve the objects mentioned above,

10   the first aspect of the present invention provides a data

conversion apparatus converting data including audio

contents to super distribution format data and outputting

the super distribution format data to be supplied to an

external recording apparatus to be recorded therein[,]

15   [said] The super distribution format data [including said] includes the

audio contents and attribute information which represents

at least a charge condition permitting a copy of the audio

contents[,]

[said] The data conversion apparatus [comprising]: Comprises

20   a data transmission/receiving section for

transmitting and receiving data to and from an external

equipment;

a data format judging section for judging whether

or not the data is of a super distribution format;

25   an attribute information obtaining section for

identifying the audio contents of the data and obtaining the attribute information corresponding to the identified audio contents from the external equipment via [said] the data transmission/receiving section [means];

5   a data format conversion section for converting the audio contents together with the obtained attribute information to the super distribution data format; and

a controller controlling [said] the data transmission/receiving section, data format judging section,

10   attribute information obtaining section and data format conversion section,

wherein, in the case where [said] the data format judging section judges that the received data is not of the super distribution format, [said] the attribute information obtaining

15   section is so controlled as to obtain the attribute information corresponding to the audio contents from the external equipment, and wherein [said] the data format conversion section is so controlled as to convert the received audio contents together with the obtained attribute information

20   into the super distribution format data, so that the resultant data converted to the super distribution data format is outputted and supplied to the external recording apparatus.

Another aspect of the present invention provides

25   a data conversion method converting data including audio

contents to super distribution format data and outputting

the super distribution format data to be supplied to an

external recording stage to be recorded therein[ ].

[said] super distribution format data [including said]

5 audio contents and attribute information which represents

at least a charge condition permitting a copy of the audio

contents[.]

[said] data conversion method [comprising the steps of]:

transmitting and receiving data to and from an

10 external equipment;

judging whether or not the data is of a super

distribution format;

identifying the audio contents of the data and

obtaining the attribute information corresponding to the

15 identified audio contents from the external equipment;

converting the audio contents together with the

obtained attribute information to the super distribution

data format; and

controlling [said] data transmission/receiving [step],

20 data format judging [step], attribute information obtaining

[step] and data format conversion [step],

wherein, in the case where [said] data format judging

[step] judges that the received data is not of the super

distribution format, [said] attribute information obtaining

25 [step] is so controlled as to obtain the attribute

information corresponding to the audio contents from the external equipment, and wherein [said] the data format conversion [step] is so controlled as to convert the received audio contents together with the obtained attribute information

5 into the super distribution format data, so that the resultant data converted to the super distribution data format is outputted and supplied to the external recording stage.

A further another aspect of the present invention

10 provides a program storage medium storing a program of a data conversion method converting data including audio contents to super distribution format data and outputting the super distribution format data to be supplied to an external recording stage to be recorded therein[,].

15 [said] The super distribution format data [including said] includes the audio contents and attribute information which represents at least a charge condition permitting a copy of the audio contents[.]

[said] The data conversion method [comprising] comprises the steps of:

20 transmitting and receiving data to and from an external equipment;

judging whether or not the data is of a super distribution format;

identifying the audio contents of the data and

25 obtaining the attribute information corresponding to the

identified audio contents from the external equipment;

converting the audio contents together with the obtained attribute information to the super distribution data format; and

controlling [said] the data transmission/receiving [step], data format judging [step], attribute information obtaining [step] and data format conversion [step],

wherein, in the case where [said] the data format judging [step] judges that the received data is not of the super distribution format, [said] the attribute information obtaining [step] is so controlled as to obtain the attribute information corresponding to the audio contents from the external equipment, and wherein [said] the data format conversion [step] is so controlled as to convert the received audio contents together with the obtained attribute information into the super distribution format data, so that the resultant data converted to the super distribution data format is outputted and supplied to the external recording stage.

By this arrangement, audio data, which is non-super distribution formatted data and recorded on CD medium or the like, is converted into a data format for network super distribution and primarily recorded so that the data can be dealt similarly to the network super distribution. As a result, when a copy is created beyond the scope of

first data conversion device according to the first embodiment of the present invention;

Fig. 8 is a flow chart showing an operation of a second data conversion device according to the first

5 embodiment of the present invention;

Fig. 9 is a diagram showing information to be displayed when music data is distributed via internet in the second embodiment of the present invention;

Fig. 10 is a block diagram showing a constitution

10 of a digital data copyright protecting system according to a third embodiment of the present invention; and

Fig. 11 is a diagram showing a data structure to be recorded in a recording data management information [temporarily] temporary memory unit.

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DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Before the detailed description proceeds, it is noted that like parts are designated by like reference numerals throughout the accompanying drawings.

20 There will be described below embodiments of the present invention with reference to the drawings.

Fig. 1 shows an outline of a data copyright protection system in a music data distribution service according to the present invention. As an example of a

25 data distribution route for distributing music data, there

are typically used internet or the like online network distribution method and a package medium distribution for distributing such as CD and DVD data. In the distribution method via internet, previously ciphered music data

5   including charge information is distributed to a user via such as a telephone modem so that the distributed data is primarily recorded on such as a hard disk serving as a primary [primarily] recording medium of a user-side personal computer (referred to as "PC" hereinafter).

10   Meanwhile, in the distribution method using a general package medium, non-super distribution formatted music data contents are distributed to a user-side PC via a disk drive (not shown). The user primarily records the distributed data on the hard disk of the PC using an

15   exclusive application software (referred to as "PC player hereinafter soft" [hereinafter]. At this time, the distributed data is added with attribute information (to be described later) such as charge information and is then ciphered to have the same ciphered data format as that of the super distribution

20   format data distributed via internet. Thus, the resultant ciphered data having the same encryption format is primarily recorded on the hard disk. By this arrangement, a data distribution system can be preferably achieved to have convenience characteristics obtained both in the

25   distribution method via internet and in the distribution

method using package medium. That is, in the via-internet

distribution method, a variety of music data can be easily

[elected] by retrieving [to] an interactive music database,

while in the package medium method, music data and related

5   information can be easily obtained on sale via a

distribution method of a low cost.

It is noted here that the term "PC player soft"

(i.e. exclusive application software) indicates software

having a function of executing down-load of music data,

10   primarily recording data on a hard disc of PC, secondarily

recording data on a portable recording medium, reading data

out of a package medium such as CD, charging process and

the like.

The ciphered data primarily recorded on the hard

15   disc of the user-side PC is read out and fed to a secondary

recording stage for copying where the data is secondarily

ciphered to be standardized having another ciphered data

format including no charge information (to be described

later). The secondarily ciphered data is secondarily

20   recorded on a secondary recording medium such as

semiconductor memory card (depicted as "Memory Card" in Fig.

1) or DVD-RAM. The secondarily recorded data on the

semiconductor memory card is read out and reproduced for

listening by means of an audio player (depicted as "Audio

25   Player" in Fig. 1), alternatively, the secondarily recorded

data on the DVD-RAM is reproduced by means of a DVD-Audio Player.

(Embodiment 1)

Fig. 2 is a constitutional diagram showing a

5   digital data copyright protecting system according to a first embodiment of the present invention, which the digital data copyright protecting system includes a data conversion system composed of a first data conversion apparatus 101 and a second data conversion apparatus 121.

10   The first data conversion apparatus 101 is interconnected with a host computer of a system control center (not shown) via an online network, and the second data conversion apparatus 121 serving as an external recording apparatus is connected to the first data

15   conversion apparatus 101 via such as a PCMCIA (Personal Computer Memory Card International Association) bus which is described later. It is assumed that the system control center includes external servers (not shown) having a database storing such as customer (subscriber) information

20   and charge information and database storing copyright owner (author) and music data information, thereby supervising the control of customers, control of charging, sales and forwarding process. The first data conversion apparatus 101 receives audio contents and/or attribute information

25   corresponding to audio contents from the external servers

of the system control center via a digital network.

In this constitution, the data conversion system compatibly receives data distributed both via internet and via disc medium such as CD. The first data conversion apparatus 101 is realized generally by a personal computer (PC), which includes a data transmission/receiving portion 102 including at least a network interface 116, data format judging portion 103, data compressing conversion portion 104, attribute information adding unit 105, first ciphering unit 106, user ID adding unit 107, first recording unit 108, primary recording medium 109, data fetching portion 110, first deciphering unit 111, data output portion 112, charging portion 113, user ID generation storage portion 114, and controller 115 for controlling the entire parts of the apparatus. The PC player soft is initially installed in the first data conversion apparatus 101 to primarily [records] record on the hard disc the primarily ciphered music data including attribute information such as charge information. The primarily recorded data is fetched out of the hard disc and then fed to the second data conversion apparatus 121 where the applied data is secondarily ciphered in another standardized encryption format and then secondarily recorded on a secondary recording medium for further copying proceeding. In this construction, the data format judging portion 103 judges whether or not the received data

format is of super distribution.

The second data conversion apparatus 121 is composed of e.g. a card adaptor of PCMCIA (Personal Computer Memory Card International Association) in the present embodiment, and includes a data receiving portion 122, second deciphering unit 123, first authentication unit 124, second ciphering unit 125, second recording unit 126, second authentication unit 127 and a secondary recording medium 128. Here, the second authentication unit 127 and the secondary recording medium 128 constitute one unit such as a semiconductor (SD) memory card which is detachably attached to the card adaptor of the second data conversion apparatus 121 and loaded onto such as a portable SD-Audio player to reproduce the recorded audio data.

Here, the second authentication unit 127 has a control function and mediates between the secondary recording medium 128 and the first authentication unit 124, performing a command/response operation therewith. The secondary recording medium 128 is composed of a flash memory such as EEPROM (Electrically Erasable Programmable Read-Only Memory).

It is noted here that, although the explanation is made in the present embodiment that the second data conversion apparatus 121 is composed of a card adaptor of PCMCIA, the second data conversion appratus 121 may be

described in a jacket or the like attached to the music CD, and then the user informs the host computer of the demand for purchase via the data transmission/receiving portion 102.

5   Here, the attribute information adding unit 105 may extract identification information peculiar to CD such as a number of pieces of the audio contents recorded in the CD and reproduction time thereof so that the attribute information adding unit 105 transmits the extracted

10   identification information to the external server of the host computer via the data transmission/receiving portion 102. Meanwhile, the host computer identifies the selected disc based on the extracted information and the attribute information of the identified CD is transmitted to the data

15   transmission/receiving portion 102. Thus, the attribute information corresponding to the audio contents recorded on the CD is sent from the external server to the the attribute information adding unit 105 via the network interface 116.

20   When receiving the user's demand for purchase, the data transmission/receiving portion 102 is connected with the host computer and the desired music data is specified based on the ISRC information, obtaining the
                                   attribute
[sttribute] information such as the charge amount information

25   for secondary recording. The user finally indicates his

intention based on the amount of the charge as to whether or not the music data is recorded onto the secondary recording medium 128. It is noted here that the user may specify the music data by directly specifying the music

5   instead of using the ISRC information stored in the TOC area.

The data format judging portion 103 judges the input data format whether or not the music data is ciphered super distribution formatted data, namely, whether or not

10   the input data is super distribution data, and judges the data input route based on the judgment. In the present embodiment, the data format judging portion 103 judges whether the music data received by the data transmission/receiving means 102 is obtained via internet

15   or via CD medium. When the judgment is made that the music data is super distribution formatted, namely, obtained via internet, the received data is directly transferred to the user ID adding unit 107 where the music data is added with the user ID supplied from the user ID generation storage

20   portion 114, and then the resultant data is recorded on the primary recording medium 109 via the first recording unit 108.

Meanwhile, when the judgment is made by the data format judging portion 103 that the music data is not super

25   distribution formatted, namely, the data is obtained via

via internet.   At this time, as mentioned above, the

attribute information (or attribute information together

with contents information) is deciphered by the attribute

deciphering key stored in the PC software for operating the

5   copyright protecting system.

      Among the data deciphered by the first

deciphering unit 111, at least deciphered attribute

information of user ID 201, ISRC information 202 and charge

information 205 is transmitted to the charging portion 113.

10   The charging portion 113 calculates a suitable amount of

charge based on the charge information 205 of the

deciphered attribute information.   The amount of charge is

transmitted to the host computer in the control center via

the data transmission/receiving portion 102.   That is, when

15   a copy of the data having the super distribution data

format is read out of the primary recording medium 109 to

be supplied to the external recording apparatus 121, the

controller 115 controls the charging portion 113 so that

the charging portion 113 executes the charging operation of

20   the super distribution data based on the charge information

in cooperation with an charging device (not shown) of the

system control center.

      Meanwhile, among the deciphered data outputted

from the first deciphering unit [11,] 111, the contents

25   deciphering key 206 and contents 207 shown in Fig. 3 are

transmitted to the second data conversion apparatus 121 via the data output portion 112. Here, in the present embodiment, the data transmission bus between the data output portion 112 of the first data conversion apparatus

5   101 and the data receiving portion 122 of the second data conversion apparatus 121 is realized by a PCMCIA bus of a personal computer (PC).

Thus, also the data obtained via CD medium is converted in cipherment format into a format which is the

10 same as that of the super distribution format data obtained via internet by the first data conversion apparatus, so that the same ciphered data format can be outputted to the second data conversion apparatus 121 compatibly to both the via-internet distribution and the CD medium distribution.

15 Next, there will be described below the operation of the second data conversion apparatus 121. In the present embodiment, it is assumed that the second data conversion apparatus 121 is generally realized by a card adaptor of PCMCIA. The data receiving portion 122 receives

20 the contents data 207 and contents deciphering key 206 outputted from the data output portion 112.

The second deciphering unit 123 deciphers the contents 207 of the data received by the data receiving portion 122. At this time, since a deciphering key

25 required for deciphering the data 207 is included as the

unit 124.

As mentioned above, the ID information peculiar to the first authentication unit 124 and the second authentication unit 127 is transmitted therebetween so that

5   the authentication is executed, and only when the judgment is made that the apparatus is justified, the identification information peculiar to the secondary recording medium 128 is obtained.

The second ciphering unit 125 obtains the

10   identification information peculiar to the secondary recording medium 128 obtained from the first authentication means 124 and creates a ciphering key based on the peculiar identification information so as to cipher the data outputted from the second deciphering unit 123. Thus,

15   although the ciphered data recorded in the primary recording medium 109 may be of different cipherment format according to the data distribution route, the data[can] can be converted to a cipherment format based on the identification information peculiar to the secondary

20   recording medium 128 in the secondary ciphering process executed by the second ciphering unit 125.

Here, since the method of creating the ciphering key based on the peculiar identification information and ciphering data is disclosed in Japanese Patent Application

25   Laid-Open No. 5-257816 (1993), the detailed description

The description about the digital data copyright protecting system according to the first embodiment of the invention is ended.

There will be described below the digital

5 copyright protecting system according to second embodiment of the present invention.

(Embodiment 2)

Since the digital data copyright protecting system according to the second embodiment has the

10 constitution same as that of the digital data copyright protecting system according to the first embodiment, only a difference between the first and second embodiments will be described here. The second embodiment is different from the first embodiment in that an amount of charge can be

15 changed according to a compressing conversion format of music data. Namely, when data of music CD is compressed and recorded primarily, compressing conversion formats and an amount of charge according to each compressing conversion format are presented to a user, and the user

20 selects a suitable compressing conversion format based on the information.

Fig. 9 shows a relationship between the compressing system and an amount of charge. Since the music title 301, the singer's name 302, the price 303 and

25 the data source name 304 were described in the first

embodiment with reference to Fig. 4, the description thereof is omitted. A compression format 801 represents a compressing conversion format of music data, and the compressing conversion formats such as LPCM and [ACC] *AAC* are

5   displayed. The user refers to the compression format 801 and the price 303 and simultaneously selects a suitable compressing conversion format. The description about the second embodiment of the present invention is ended here.

There will be described below the digital data

10   copyright protecting system according to a third embodiment of the present invention.

(Embodiment 3)

Since the digital data copyright protecting system according to the third embodiment has a constitution

15   which is approximately same as that of the digital data copyright protecting system according to the first embodiment, only a difference therebetween will be described below, and the same reference numerals are given to identical components.

20   Fig. 10 shows the constitution of the digital data copyright protecting system according to the third embodiment. Since the first data conversion apparatus 101 has the constitution same as that described in the first embodiment, the description thereof is omitted.

25   The second data conversion apparatus 121 is

composed of the data receiving portion 122, second

deciphering unit 123, first authentication unit 124, second

enciphering unit 125, second recording unit 126, second

authentication unit 127, and secondary recording medium 128.

5   The apparatus 121 further includes a recording data

management information [temporarily] temporary storage portion 901 and

a recording permission judging unit 902. The third

embodiment is different from the first embodiment in that

the second data conversion apparatus 121 includes the

10   recording data management information [temporarily] temporary storage

portion 901 and a recording permission judging unit 902.

In this construction, the recorded information of music

data and information in the secondary recording medium

where the music data were recorded can be temporarily

15   stored in the second data conversion apparatus 121.

The recording data management information

[temporarily] temporary storage portion 901 manages the music data

recorded in the second data conversion apparatus 121.

Fig. 11 shows a data structure of the management

20   information. An entry number 1001 represents a number of

music data recorded on the recording data management

information [temporarily] temporary storage portion 901, and the entry

number 1001 takes integer values of not less than 0.

Thereafter, as for entry #1 through entry #N, data is added

25   only by a registered number of entries. ISRC information

1005 is ISRC information of music data to be recorded. Hereinafter, identification information 1006 is a value of identification information peculiar to the secondary recording medium 128 for recording the music data. A

5 compressing format 1007 or the like of the music data is also recorded as the need arises. In such a manner, the music data recorded in the second data conversion apparatus 121 and the secondary recording medium 128 having the music data recorded thereon can be managed in the recording data

10 management information [temporarily] storage portion 901.

Here, there will be described below the case where the same music data is recorded by the same user on different secondary recording media 128. In the present embodiment, the recording permission judging unit 902

15 executes following three types of processes.

(1) In the case where the different secondary recording media 128 are used, the music data is not permitted to be recorded.

(2) In the case where the different secondary

20 recording media 128 are used, if the music data which have already been recorded onto another recording medium is deleted, the recording is permitted.

(3) In the case where the different secondary recording media 128 are used, a suitable copyright charge

25 is collected.

In the following description, the different secondary recording media 128 are a secondary recording medium 128A and a secondary recording medium 128B.

When the music data are first recorded onto the

5 secondary recording medium 128A, it is checked that the music data to be recorded have not been recorded on the recording data management information [temporarily] storage means 901, namely, the corresponding music data have not been recorded onto the recording data management

10 information [temporarily] storage means 901, and the ISRC information 1005 of the music data, the identification information 1006 peculiar to the secondary recording medium 128A and the like are recorded onto the secondary recording medium 128A.

15 Next, when the same music data is recorded onto the secondary recording medium 128B, the ISRC information 1005 is retrieved from the information in the recording data management information [temporarily] storage portion 901, and it is checked that the coincided information exists,

20 namely, the music data to be recorded have been recorded. Next, the identification information 1006 is referred to and a check is made as to whether or not it coincides with the identification information of the secondary recording medium 128B. When they coincide with each other, the

25 recording permission judging unit 902 permits the music

data to be recorded onto the secondary recording medium 128B.

When they do not coincide with each other, a judgment is made that a user who bears ill will possibly creates a copy of the copied music data, and thus

(1) the recording is not permitted, it is displayed on the display means that the recording cannot be executed and the process is ended.

(2) when the music data which is recorded on another recording medium where the music data (in the present embodiment, the secondary recording medium 128A) have been recorded are deleted and when the music data is recorded onto the secondary recording medium 128B, the recording is permitted. Namely, when the corresponding music data is deleted from the secondary recording medium 128A, the corresponding music data is deleted from the recording data management information [temporarily] temporary storage portion 901, and thus the recording becomes possible.

(3) a suitable amount of charge is presented to a user, and if the user agrees, the charging process is executed so that the recording onto the secondary recording medium 128B is permitted.

Here, the description about the digital data copyright protecting system according to the third embodiment is ended.

ABSTRACT OF THE DISCLOSURE

In a data conversion apparatus [(101)] of a copyright protecting system, a data format judging portion [(103)] judges whether or not the data is of a super

5 distribution format, attribute information obtaining unit [(105)] identifies the audio contents of the data and obtains the attribute information corresponding to the identified audio contents from the external equipment via [said] the data transmission/receiving portion [(102)]; and a data format

10 conversion portion [(104, 105, 106)] converts the audio contents together with the obtained attribute information to the super distribution data format to be supplied to an external recording apparatus [(121)].

15